

KFH GROUP, INC.

ARK-TEX AREA REGIONAL PUBLIC TRANSPORTATION COORDINATION PLAN

Developed for:
ARK-TEX COUNCIL OF GOVERNMENTS

By:
KFH Group, Incorporated

In Association with:
Kimley-Horn and Associates, Inc.

November 30, 2006

For presentation to the:
**Texas Department of Transportation
Public Transit Division**

TABLE OF CONTENTS

	<u>Page</u>
BACKGROUND.....	1
PLAN PROCESS	2
REVIEW OF EXISTING SERVICES.....	4
COORDINATED TRANSPORTATION: PLANNED ACTIVITIES FOR THE ARK-TEX AREA	13
INTRODUCTION.....	13
JARC, NEW FREEDOM, AND SECTION 5310	15
ORGANIZATIONAL/COORDINATION TASKS.....	15
SERVICE AND OPERATING TASKS.....	19
CAPITAL NEEDS	29
OTHER COORDINATION AND OPERATIONAL TASKS	29
FUNDING PRIORITIES	30

ARK-TEX REGIONAL PUBLIC TRANSPORTATION COORDINATION PLAN

BACKGROUND

The nine-county Ark-Tex area (Bowie, Cass, Delta, Franklin, Hopkins, Lamar, Morris, Red River, and Titus Counties) is a geographically unique area of Texas. The largest cities, Texarkana and Paris, are each at the far opposite ends of the region. Most of the service area is rural in nature, with few major destinations outside the larger cities and the I – 30 corridor.

The transportation network in the Ark-Tex area is managed and operated through two transit providers, a variety of organizations that provide or fund transportation in support of their primary programs (including public entities, private for profit, and non-profit firms) and a separate provider for Texas Department of Transportation's (TxDOT) Medicaid Transportation Program (MTP). The majority of the service area is managed by Ark Tex Rural Transit (TRAX), part of the Ark-Tex Council of Governments (ATCOG). ATCOG and its subcontractor have an exceptional record of coordination of services. This plan seeks to continue the ATCOG tradition of coordination of services and to expand the availability of transportation for all residents and visitors to the nine county service area.

A Legislative Mandate

In 2003, enactment of House Bill 3588 in the 78th Texas Legislature substantially altered the way human service transportation is administered. The TxDOT was given the added responsibility for direct funding, management, and oversight of selected client transportation

services delivered under the Texas Health and Human Services Commission (HHSC), and the Texas Workforce Commission (TWC) programs. The intent of HB 3588 is: “1) To eliminate waste in the provision of public transportation; 2) To generate efficiencies that will permit increased levels of service; and 3) To further the state’s efforts to reduce air pollution” (*HB3588, Article 13, Chapter 461, Section 461.001*).

In 2005, the TxDOT Draft Strategic Plan called for the development of regional public transportation coordination plans. Texas Transportation Commissioner Andrade then led the efforts to implement a strategy to develop regional public transportation plans. This study is in response to that planning strategy.

Broadly, the project examined ways to more effectively “manage mobility” for the region. A major area of emphasis for this study was the coordination of services at the local level. The project included an evaluation of coordinated transit and human service transportation on a regional scale throughout the Ark-Tex area. Through this planning process there will be consideration of the use of New Freedom federal funds, Job Access Reverse Commute (JARC) funds, as well as Federal Transit Administration (FTA) Section 5310 funding.

PLAN PROCESS

The plan was developed through three major tasks over a five-month period. Each major task generated a technical memorandum, each of which are contained in the appendix to this plan (Technical Memoranda Nos. 1-3). The technical memoranda are:

- Technical Memorandum #1: Goals and Objectives and Outreach Plan
- Technical Memorandum #2: Review of Existing Transit Services
- Technical Memorandum #3: Current and Future Transportation Demand and Travel Patterns

A summary of the key findings documented in each technical memorandum and their implications for subsequent phases of the analysis is presented below.

GOALS AND OBJECTIVES

The first major task of the project was the development of goals and objectives for the plan and the development of the planning process in the Ark-Tex area (Technical Memorandum #1). In conjunction with the ATCOG staff and the members of the Regional Public Transportation Plan Committee, the following vision was developed.

Residents (including the general public and human service clientele) and visitors (including residents of adjoining states) to the nine-county Ark-Tex area will be able to move throughout the region safely, reliably, efficiently, and affordably by using a seamless network of public and private facilities and services that are easy to comprehend, responsive to individual travel needs, and easy to access.

This was followed by the development of goals and corresponding objectives.

- Enhance the quality of the customer's travel experience.
- Expand the availability of services to those who are unserved as well as those currently using the service.
- Increase the cost-effectiveness and efficiency of service delivery.
- Establish and sustain communications and decision-making mechanisms among sponsors and stakeholders to guide Plan implementation effectively.
- Improve the image of transit across the region.

Outreach Plan

Community outreach is a key element in: discerning needs, potential opportunities, and challenges. In order to facilitate this consensus building process, the Outreach Plan identified key stakeholders in each of the nine counties.

I. Identify Appropriate Partners/Agencies

The first step in the process was to identify the key stakeholders within each county. This effort began in July, 2006 and continued through August, 2006. The list of contacts that were targeted included:

- County Judges and other elected officials
- MPOs, county planning departments
- Human service agency representatives
- Veterans groups
- All transportation operators
- Hospitals/Medical Centers
- Transit user representatives from each county
- Intercity carriers
- Others identified as appropriate

II. Receipt of Input

The second step included contacting the key stakeholders and setting up on-site community outreach sessions. In addition, where possible, we piggybacked on pre-existing meetings to avoid duplication of effort. Information for this project was acquired through one of the following appropriate methods depending upon the stakeholders involved:

- One-on-one meetings/interviews
- Public meetings
- Phone interviews
- E-mail input

REVIEW OF EXISTING SERVICES

The next major task of the project was documentation of existing resources for providing regional public transportation (Technical Memorandum #2). This entailed both a review of each provider, followed by coordination efforts.

Survey Analysis and Results

A total of 11 providers were asked to participate by completing a survey (based on the tool provided by the Texas Transportation Institute).

Surveys were sent to the following entities:

Ark-Tex TRAX	NETO TRAX
T-Line (Texarkana Urban Transit District)	City Cab
Yellow Cab (Texarkana)	Yellow Cab (Paris)
Opportunities Inc.	Senior Services
Texarkana Resources for the Disabled	Atlanta Memorial Foundation
Lamar County Human Resources Council	

All of the major providers of transportation responded.

Existing transit providers include T-Line, TRAX, the rural transit system covering nine counties – managed and operated by ATCOG and its subcontractor NETO, Inc. Further, a new Medicaid operator has been selected by TxDOT-MTP to operate the service – East Texas Support Services, Inc. Previously NETO had operated the service for over 20 years (and in the past few years, with TRAX).

Existing Coordination

TRAX and NETO have an extraordinary record when it comes to coordination of services. TRAX has true grass roots coordination of services. Unfortunately, the largest program was taken away by TxDOT-MTP and awarded to another entity. It should be pointed out that the MTP is far and away the largest human service transportation program, considerably larger than all other coordination opportunities combined. While that opportunity is gone now, TRAX continues to coordinate services to ensure that the residents of its service area receive the service they need.

Following are many of the coordination efforts that have been undertaken by TRAX:

1. Coordination with Mental Health and Mental Retardation – Transportation to sheltered employment in Bowie, Cass, and Morris Counties.
2. Adult Day Care – This service is coordinated with the general public service in Bowie and Texarkana proper.
3. Ark-Tex Area Agency on Aging (AAA) – Senior transportation throughout the service area to meals and other services.
4. Northeast Texas Community College – Service from Mt. Pleasant to the community college is provided by TRAX.
5. Head Start – TRAX provides Head Start transportation in Titus County. This is unusual in that few systems continue to provide Head Start transportation.
6. WIC, Literacy Council – Service in support of these programs on an as needed basis.
7. Federal Emergency Management Agency (FEMA) – contracted to provide transportation for training in the aftermath of Hurricanes Katrina and Rita.
8. T-Line – Texarkana’s urban system has a memorandum of understanding that allows TRAX to support T-Line and serve residents outside the Americans with Disabilities Act (ADA) paratransit service area.
9. Adjacent Rural Transit Systems – TRAX has agreements with all of the contiguous transit systems.
10. JARC – TRAX previously had a contract to provide this service.
11. Texarkana Housing Authority – Assisted the Authority while apartments were being renovated. TRAX provided transportation to and from the temporary housing.
12. Pilgrims Pride – TRAX received funding to support the Mt. Pleasant fixed-route service.
13. Medical Transportation – TRAX and before that NETO managed and operated the MTP for over 20 years.

CURRENT AND FUTURE TRANSPORTATION NEEDS/DEMAND

Technical Memorandum #3 reviewed and assessed transit needs in the service area. Primarily, the technical memorandum 1) introduced the service area; 2) reviewed demographics and land use providing an understanding of where transit riders reside and where they need to go, 3) reviewed travel patterns and identified major travel corridors, and 4) estimated future commute patterns.

Service Area

The Ark-Tex service area encompasses nine linked counties with a total population of 270,468 according to the 2000 Census, which has grown to 275,449 people in 2005. Table 1 displays the distribution of population throughout the study area over the past 15 years by county. Populations of cities of at least 2,000 people in the region are listed in Table 2.

**Table 1: POPULATION OF COUNTIES
IN ARK-TEX COG STUDY AREA**

County	2005	2000	1990
Bowie	90,643	89,306	81,665
Cass	30,155	30,438	29,982
Delta	5,480	5,327	4,857
Franklin	10,200	9,458	7,802
Hopkins	33,381	31,960	28,833
Lamar	49,644	48,499	43,949
Morris	12,936	13,048	13,200
Red River	13,575	14,314	14,317
Titus	29,445	28,118	24,009

Table 2: CITIES WITH POPULATIONS OF AT LEAST 2,000

County	City	2005	2000	1990
Bowie	Texarkana	35,746	34,782	31,656
Lamar	Paris	26,539	25,898	24,699
Hopkins	Sulphur Springs	15,228	14,551	14,062
Titus	Mount Pleasant	14,760	13,935	12,291
Cass	Atlanta	5,677	5,745	6,118
Bowie	Wake Village	5,226	5,129	4,757
Bowie	New Boston	4,624	4,808	5,057
Cass	Clarksville	3,611	3,883	4,311
Morris	Daingerfield	2,470	2,517	2,572
Bowie	Nash	2,352	2,169	2,162
Cass	Linden	2,201	2,256	2,375
Delta	Cooper	2,185	2,150	2,153

Demographics

The analysis in this study provided a review of transit needs of those population segments that are potentially transit dependent (Figure 1) as well as the overall population distribution in the Ark-Tex Study Area. Potentially transit dependent population segments are those segments of the population that, because of demographic characteristics (age, disability, income, or automobile availability), may potentially require transit services to meet mobility needs.

The demographic analysis revealed that there are urban, suburban, and rural areas. The maps illustrate that outside of the downtown areas, most of the study area is rural. Overall, the ranking of population density follows the pattern of population density, although the higher needs are more concentrated in the city center.

Major Destinations

Another component of the transit planning process is identifying major trip destinations within the study area, including major employers (Figure 2), shopping centers, schools, and medical facilities (Figure 3). The analysis of land uses in the Ark-Tex area displayed that:

- Paris and Sulphur Springs can both support a modest fixed-route/flex route service similar to Mt. Pleasant. They are both major centers for employment, medical, and shopping needs, generating a significant number of trips.

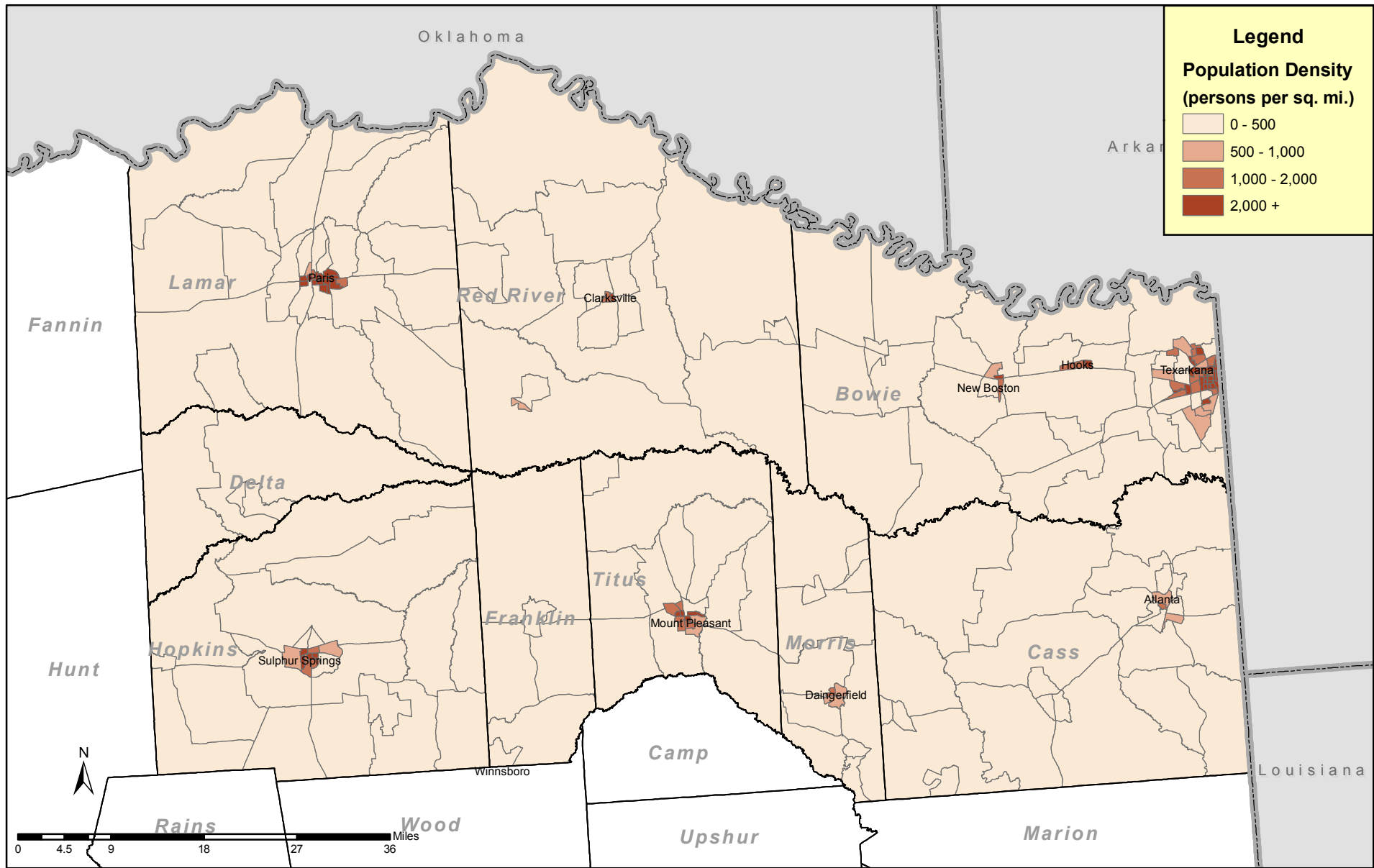


Figure 1: POPULATION DENSITY BY BLOCK GROUP

Prepared
by **KFH**
GROUP



Ark-Tex Council of Governments

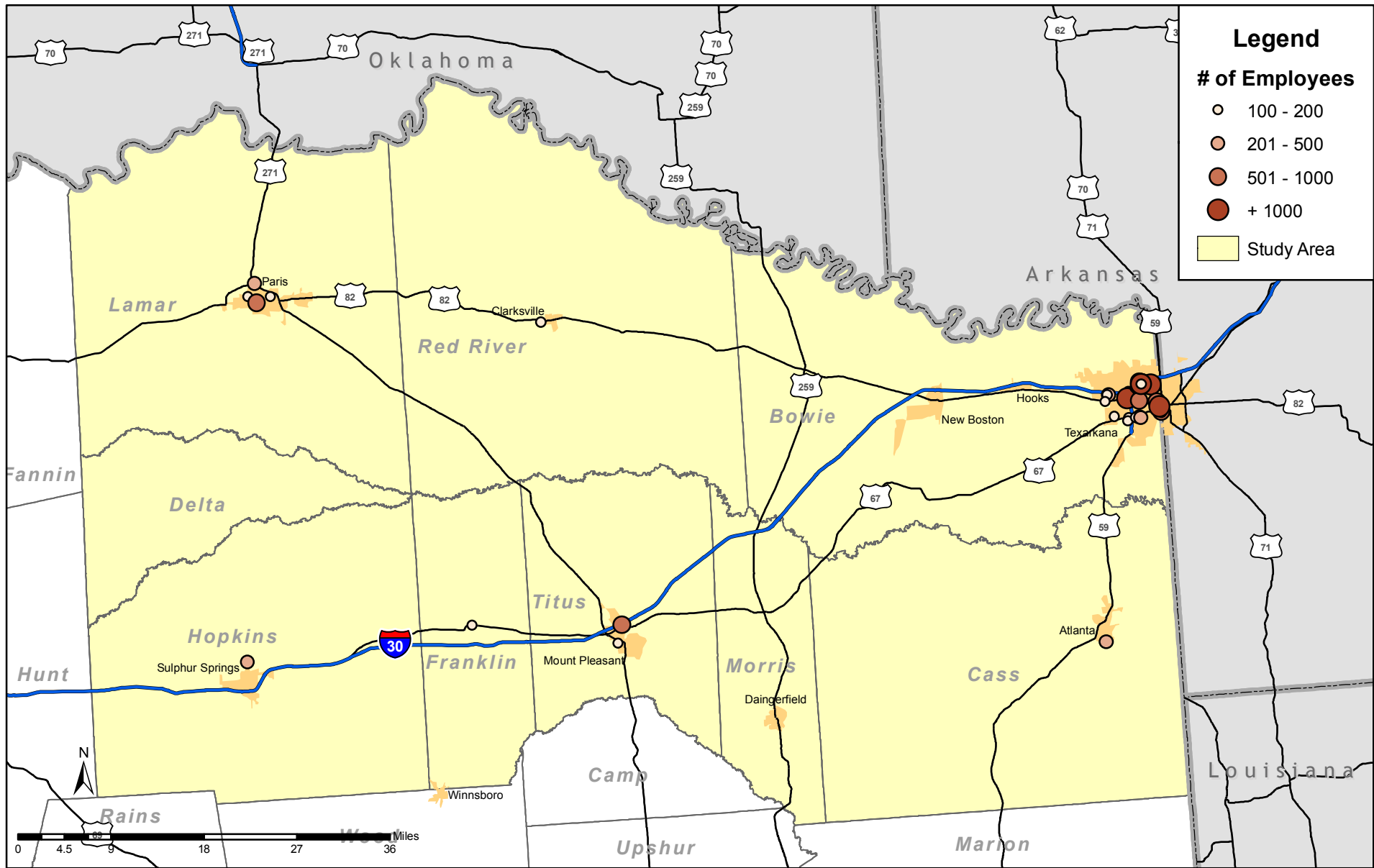


Figure 2: MAJOR EMPLOYERS

Prepared
by **KFH**
GROUP



Ark-Tex Council of Governments

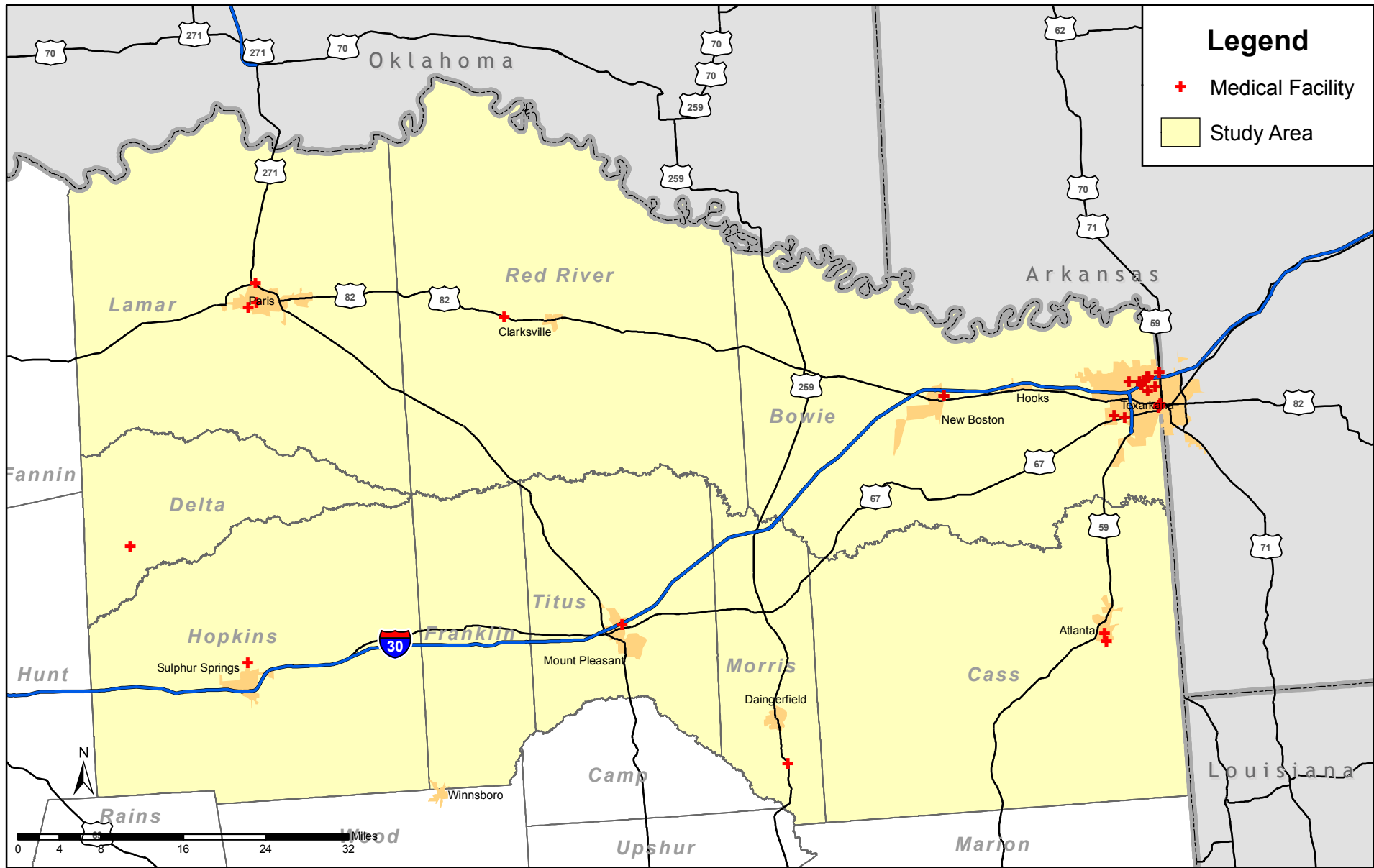


Figure 3: MEDICAL FACILITIES



- There are three very small counties with few resources – Franklin, Delta, and Morris Counties. These counties have the greatest need outside their counties.
- The smaller towns of Atlanta, Clarksville, and New Boston can sustain a one-vehicle dial-a-ride service.

Travel Patterns

Work trip patterns were derived from Journey to Work data from the 2000 U.S. Census. Specifically, summaries were generated for the nine-county region by place of residence, by place of work, and for worker flows between home and work. Then at the county level, Census data was supplemented by the use of three separate metropolitan planning organizations' travel demand models, the Statewide Analysis Model (SAM), and the insight gained during public/agency outreach. The analysis of commute patterns indicates the following future travel patterns:

- Based upon information from the 2000 Census Journey to Work data, transit ridership in the Ark-Tex region will grow at a pace of 1.02 percent over the next three years, 1.7 percent in five years, and 3.4 percent in ten years.
- For the foreseeable future, the top transit market in the region will be to Texarkana from almost all the other counties within the region.
- Demand for transit will increase between the following communities: Mount Pleasant and Daingerfield; Mount Pleasant and Mount Vernon; Paris and Clarksville; Paris and Cooper; Cooper and Sulphur Springs; and Mount Pleasant and Sulphur Springs. Texarkana to each of the counties must also be included in this list as well.
- There will be strong transit demand in Paris and Sulphur Springs. Fixed-route transit routes may become warranted.
- There will be a need to develop the travel between Linden and Atlanta; and Texarkana and The Red River Army Depot.

These future commute patterns further illustrate the strong commuting interchange between the counties within the Texarkana MPO region. After reviewing the travel patterns and the survey responses for the Ark-Tex Region, the following findings and implications emerged:

- The Ark-Tex Region has four counties ranked in the lower half of the 254 Texas counties in terms of average household income.
- Related to the point above, vehicle ownership in the Ark-Tex Region is below that of the Texas State average.
- The culmination of the above two facts revealed an unmet transit need in the Ark-Tex Region.
- The Texarkana Region does have significantly more commuters driving alone to work. This point illustrated an unfavorable outlook to ridesharing or less knowledge about the advantages of a regional vanpool and carpool program.
- Measured by the absolute number of commuters, Bowie County is by far the top destination county for workers in the region, primarily being the border county with Arkansas and having a military facility.
- While much of the data describes work trip patterns, the importance of no-work related trips in the region cannot be understated, particularly for certain stakeholder groups such as veterans groups, lower income workers, and the elderly whose needs were discussed and examined during the outreach process.

COORDINATED TRANSPORTATION: PLANNED ACTIVITIES FOR THE ARK-TEX AREA

The Study Committee worked closely with the consultants and the public to develop a Plan that will meet a variety of transportation needs for all residents of the nine-county Ark-Tex Area. The Plan addresses a wide variety of organizational, coordination, and service activities. In addition, the Plan addresses the needs associated with the JARC and New Freedom initiatives, as well as funding for the FTA Section 5310 program.

INTRODUCTION

The first part of this section of the Plan reviews the assumptions made through this planning process. The second part of this section reviews the organizational coordination issues that should be employed, followed by rural service activities and then urban activities. Again, making sure that JARC and New Freedom initiatives are being met, as well as FTA Section 5310 funding for elderly and persons with disabilities.

Service Assumptions

1. **Latent Demand** – The low usage of public transit in the Ark-Tex area is in large part due to the lack of regularly scheduled service available for the general public, throughout most of the service area. Coupled with this is the high numbers of auto less households in many of the counties and the low income nature of the region. Therefore, there is a demand for service that has not manifested itself due to a lack of available options (except in Texarkana and Mt. Pleasant where ridership is good).
2. **Funding Issues** – Funding, both local and state/federal is always a constraint to service expansion. New services cannot be implemented without a significant commitment of local funds. These funds will be secured from local governments, private businesses, and human service agencies that coordinate services.
3. **Mobility Management** – Short-range planning and management activities and projects for improving coordination among public transit and other transportation providers. The region will designate one local entity to coordinate these mobility management activities and combine/coordinate with a variety of entities.
4. **Coordination Efforts** – TRAX is a highly coordinated system with myriad contracts and agreements as described in Technical Memorandum No. 2. The only significant source of coordination funding is MTP and these funds have been committed by TxDOT-MTP to a different contractor.
5. **Coordination Must Make Business Sense** – It is important to note that coordination must be a mutually beneficial agreement. That is, coordination must make business sense.
6. **Fixed-Route and Flex-Route and Other Scheduled Service** – Productivity is a key to success. TxDOT funding is dependent to a large degree on the numbers of trips provided. The best way to provide the largest number of trips is to utilize the array of fixed-route and hybrid services that tend to group trips according to a schedule.
7. **Use of Technology** – While coordination does not require technology to be successful, the use of technology can be of significant help in the process if used properly. There are areas where technology can assist in the overall mission of providing more service.
8. **Preventive Maintenance** – TRAX will continue to use Section 5310 funds to assist in preventive maintenance. These funds will ensure that the vehicles can be operated in the most cost effective manner.

JARC, NEW FREEDOM, AND SECTION 5310

JARC funds for access to employment for low income individuals, the New Freedom funding to expand opportunities for persons with disabilities, and the FTA Section 5310 funding for elderly and persons with disabilities all require a plan to coordinate these funds. As part of this plan (which is incorporated in this planning process) the next sections identify the priorities for these funds, as determined by the Study Committee.

ORGANIZATIONAL/COORDINATION TASKS

The transportation programs in the service area are well coordinated between the Ark-Tex Rural Transit (TRAX) and most of the human service transportation programs. The exception to this is Medicaid Transportation, far and away the largest human service transportation program. This decision was made by TxDOT-PTN/MTP. Because of this decision, Medicaid Transportation, provided by East Texas Support Services of Jasper, Texas is not coordinated at all. However, while the Study Committee believes that these services should be coordinated at the local level, this is currently dependent on TxDOT-PTN/MTP decisions.

The majority of the coordination effort over the course of the plan will focus on activities that the region can control:

- Continuing to seek small scale coordination efforts
- Development of a Mobility Manager
- Further coordinate TRAX services and reduce contractor/Council of Governments (COG) duplication of effort

Coordination Task No. 1 - Continue Coordination Efforts

The key participants in the Ark-Tex area should continue to work together in a formalized setting allowing all participants and other interested parties to participate.

Coordination Task No. 1.1 - Formalize Coordination Work Group

A committee should be formed to include: all major operators, funding agencies, private sector transit providers, other agencies, and consumers. Having political or business leaders on the committee is advisable as well.

Coordination Task No. 1.2 - Human Service Coordination Opportunities

In this task, TRAX will work closely with the AAA to target elderly populations in need of paratransit services throughout the rural service area. These efforts are intended to improve mobility for elderly and persons with disabilities that cannot ride the fixed-route or fixed schedule bus.

The Ark-Tex WorkForce Board will work closely with the Mobility Manager to continue to identify needs and solutions. The destinations of these constituents are such that they may be scattered throughout the service area. The best way to serve these persons is through a fixed-route type service that allows transfers to ensure that customers can get to any point in the service area. By funding a new route or service, clients of the workforce board can access the entire network for not just work, but other needs as well.

The key to coordinating these services is to have the agencies support the service or a particular route(s). Rather than fund individual trips, funding a service allows the transit system to better coordinate and grow the service, which will provide more benefits for all consumers including the agency constituents. Funding for these efforts can include *AAA funds, workforce board funds, JARC, New Freedom, and Section 5310*.

Coordination Task No. 1.3 – Coordination with Small Operators – Developing a Mentoring Program

While some agencies and organizations with small scale operations will not want to be involved in a large scale coordination effort; there are areas where these agencies can benefit from coordination. These include one- and two-van adult day care operators, senior centers, veterans groups, hospital shuttles, as well as other entities. These transportation services, typically in support of other programs, have stated that they have no interest in relinquishing

their service to a larger system. In fact, it is important that these agencies maintain their identities because their strength comes from their passion, dedication, and volunteerism, which would disappear in a coordinated network. This plan wants to encourage that passion by nurturing the agencies and allowing them to flourish.

With that understood, there are a number of areas where these small agencies can benefit from coordination. A mentoring and support program where the small agency can turn to for advice, support, training or even vehicles, will be initiated by TRAX. These include small agency participation in programs developed by TRAX such as: driver training, maintenance, insurance, and vehicle replacement programs. These efforts can pay immediate safety and performance dividends to those small one- or two-vehicle services.

The vehicle replacement program will have the transit agency transfer or lease (for a minimal amount) vehicles being retired, to a non-profit where the intentions are for the second agency to continue to provide transportation. The receiving agency would be required to train its drivers through the larger system's training program and utilize the transit system's maintenance programs. Minimal funding is required to initiate these activities through the Mobility Manager. The agency receiving the vehicle would report ridership, maintenance, and other documentation to the transit system. This program will allow more service to be provided to more people in the service area.

Coordination Task No. 2 - Development of a Regional Mobility Manager - Brokerage

The ATCOG, working with each of the providers, funding agencies, and other interested stakeholders, will become the Regional Mobility Manager, coordinating a variety of public and private transportation service as well as acting as the regional rideshare manager for the nine counties. ATCOG has been fulfilling that role on an unofficial basis for many years, is locally based and well respected in the communities it serves. The Mobility Manager will have a variety of planning and administrative/financial activities to perform. These could include, but are not limited to:

- Planning and identifying needs and solutions
- Seeking public and private funding
- Coordinating various operators in the region

- Coordinating human service transportation
- Conducting rideshare efforts
- Working closely with employers to maximize commuter resources
- Work with planning and economic development staff of the local governments to ensure accessibility and attempt transit oriented development wherever feasible.
- Organizing and staff various committees in urban and rural areas
- Working closely with operators to avoid duplication and waste

The Mobility Manager can also assist in the distribution of vehicles retired by a transit operator (but still quite serviceable) to local volunteer and human service organizations, as discussed above.

These mobility management efforts will be funded through *JARC and New Freedoms Funding* as well as Sections 5311 and 5310 funds.

Ridesharing

Currently in the Ark-Tex Area there is no mechanism to aid in the formation of vanpools or carpools. Analysis of the commute patterns revealed a great opportunity for ridesharing in each of the major corridors. Ridesharing is typically composed of a central database for matching individuals with similar commute trips into carpools or vanpools. These successful vanpools can grow into fixed routes over time.

Carpools include in-formal or formal arrangements by individual to share a ride to work or on other regular trips. Vanpools are typically a formal arrangement by a group of 7 to 15 individuals that share a similar commute trip. Often these arrangements are facilitated by a governmental authority. In this case, ATCOG as the Mobility Manager, would be responsible for developing the ridesharing and commuter program (designed to attract as many persons with disabilities and low income individuals as possible). Many vanpools pay for themselves as well, while others receive some subsidy.

Some issues that need to be further studied to implement an Ark-Tex Area region-wide rideshare program include:

- A. The issues and cost savings surrounding the use of lease operated passenger vans verses public owned passenger vans. Again however, if the vans are full, they can pay for themselves.
- B. The best subsidy and cost structure to optimize reporting and increase customer utility.
- C. The level of safety associated with 15 passenger vans and the impact of driver training courses for mitigating accident rates.
- D. A mechanism to add part-time riders to the vanpools for training and other needs.
- E. Accessible vehicles should be available as needed.

Coordination Task No. 3 - Coordinating Services Between ATCOG and NETO

TRAX is made up of ATCOG as the Section 5311 operator with NETO as its subcontractor. NETO operates quasi-independently from ATCOG allowing for some duplication of effort. ATCOG as the designated operator is not in control of the entire operation. That should change and reduce some duplication of effort.

There is considerable duplication in dispatch services in the region. Part of the service is dispatched by NETO and part by the COG. There is no reason that all dispatching cannot be done by one entity at one location. There is technology available to allow two persons to manage all of the service during peak hours. It is recommended that ATCOG take over all reservations, scheduling, and dispatch for TRAX. This would require purchasing of state of the art telephones and appropriate paratransit software. This move will quickly save money and improve performance.

SERVICE AND OPERATING TASKS

In order to effect a change – an improvement in what the customer sees, ultimately there must be service improvements. The Study Committee stated that three of the primary goals of the plan should be to:

- Enhance the Quality of the Customer's Travel Experience

- Expand the Availability of Services to Those Who are Unserved
- Increase the Cost-Effectiveness and Efficiency of Service Delivery

There are two basic considerations in designing effective and efficient transit services in areas not yet served. **Effectiveness is doing the right things, while efficiency is doing things right.** The system is *effective* if it meets the travel needs of the residents. This means identifying the markets for transit and determining if those markets are served. A system is *efficient* if it meets those needs in a manner that maximizes travel while minimizing resources expended. This means providing a mix of services that are appropriate to the need. The most challenging aspect of being efficient is to use less expensive fixed-route services in areas which can sustain those services, and then fill in with more expensive demand-responsive services in areas without sufficient densities or for persons unable to use fixed-route services -- to provide a mix of services that do not compete and result in the most rides and service for the dollars expended.

There are a variety of services that should be provided throughout the service area to meet the most needs possible. As discussed above, paratransit, the predominant mode in use in the rural parts of the Ark-Tex Area, is the most expensive and least productive form of transit available to TRAX. This plan calls for using paratransit only where necessary or advantageous.

There will be a “family” of services each designed to meet particular needs. For the most part, existing vehicles can be utilized, shifting from one on one paratransit service to a scheduled service. Most services will be scheduled, with these schedules prominently displayed and promoted. This will allow for the most productive service and of course the greatest ridership, meeting the most needs. The family of services are described below (and summarized in Table 3).

- **Fixed-Route and Flex-Route** - Currently Texarkana (with Nash and Wake Village) and TRAX - Mt. Pleasant service are the only two fixed-route operations in the region. Texarkana’s system has rapidly increased ridership each year, demonstrating the successes that can be achieved. Paris and Sulphur Springs can also sustain fixed-route service (although a more modest service). Persons with disabilities will be particularly well served.
- **Dial-a-Ride** - Smaller towns can sustain a dial-a-ride service, these towns are: Atlanta, Clarksville, and New Boston.

Table 3: OPERATIONAL TASKS FOR THE ARK-TEX AREA

No.	Operational Task	Benefits	Service Level	Costs*	Funding Sources
1	Fixed-Route & Flex-Route	The most effective way to serve residents of small cities. Excellent for job access needs.	12 - 14 hour days with 2 - 3 vehicles, M - Sat	\$330,000 for two vehicles	Local funding, S.5311, New Freedom
2	Small Town Dial-a-Ride	An excellent way to meet the needs of small town residents in a cost effective manner advocates for work and medical trips.	12 hour days with 1 - 2 vehicles-Monday through Friday	\$165,000 for one vehicle. Will replace existing service. No additional costs.	Local funds, New Freedom, S. 5311
3	Fixed Schedule	Allows system to group what would otherwise be very unproductive and costly service.	10 hour days with 1 - 2 vehicles per county	\$138,000 for one vehicle. Will replace existing service. No additional costs	Local funds, 5311
4	Paratransit Service	This service would be available for those that cannot ride fixed-route or fixed schedule service. Must not compete with dial-a-ride or fixed-route.	One vehicle per county with ten-hour days	\$138,000 for one vehicle. Replaces existing service	New Freedom, S.5311, local funding
5	Commuter Service	Responds to need expressed by consumers, agencies, and advocates. Excellent way to provide job access.	Each corridor will need 12 hours of service per day. Monday through Friday	\$165,000 for each corridor	Local funding, JARC, S. 5311
6	Ridesharing	An inexpensive way to address commuter needs. Part of Mobility Manager.	One full-time staff will be needed to promote and manage the program	\$60,000 for salary and fringe. Costs of vehicles and service paid by riders and employers	JARC, New Freedom, local businesses
7	Texarkana Suburbs	Will meet a defined need in an area where there is no urban transportation service.	Up to 2 vehicles for 12 - 14 hours per day	\$330,000 for two vehicles Replaces at least one vehicle	New Freedom, local funding
8	Shopper Shuttle	Targeting elderly persons, this can be an effective service.	1 - 2 vehicles operating 4 hours per day	\$55,000 for one vehicle. Costs should be paid by businesses	Local businesses - Wal-Mart, Albertsons, etc.

* Note that in many cases, the new proposed service will take the place of the existing service, resulting in no additional costs.

- **Rural Fixed Schedule Service** - Rural areas would receive a fixed schedule service, where the vehicle will pick up door to door or at a bus stop. Customers will have to adhere to the bus schedule.
- **Paratransit Service** – Paratransit will be available for those persons who cannot ride the fixed-route or for some reason cannot adhere to the schedule for the rural areas. It is important to limit the availability of this service.
- **Inter-County Commuter Service** – There are a number of corridors of travel that would warrant some level of commuter service. This would include vanpools and where warranted a commuter bus that would also address medical and job training needs.
 - Where demand manifested itself through marketing or other efforts, vanpools would be formed.
 - The corridors with the most demand may warrant a bus that can be coordinated with other needs. This would require three round trips per day and be able to address reverse commute needs.

Operational Task No. 1 - Implement Fixed-Route and Flex-Route Service

Basic fixed-route concepts are essential rules that should be followed in the creation of a fixed-route or flex-route local bus service plan in the Ark-Tex Region including:

- **Minimum Density** – Fixed-route service should be available in communities of at least 1,000 persons per square mile, as well as areas with major destinations.
- **Service Days and Hours** – It is recommended that service operate at a minimum, 7:00 a.m. to 7:00 p.m., Monday through Friday and 9:00 a.m. to 7:00 p.m. on Saturday.
- **Maximize Use of Fixed-Route** – Accessible fixed-route local bus service has proven capable of transporting most persons with disabilities. Indeed, mainstreaming is the intent of the ADA legislation. Incentives and training should be provided for persons with disabilities to ride fixed-route.
- **ADA Complementary Paratransit** – Flex-route service would be appropriate initially for Paris and Sulphur Spring.
- **Serve Public School Students** – Student transportation for children who live less than two miles from a school is an important part of a fixed-route system where this two mile rule applies. Each route should be designed to generate maximum ridership for students. Routes can change during peak school hours to accommodate student needs.

- **Timed Transfer and Interlining** – Fixed routes will meet at designated transfer points and then become a second route (interlining). This reduces the need for transfers. These services will also be timed to meet inter- and intra-county service, where possible.
- **Out and Back** – This is the traditional form of fixed-route transit, where as a general rule, a bus goes in two directions down each street it traverses. Large loop style routes where the vehicle goes one way down each street are generally ineffective due to long travel times, circuitous routings, and difficulties in comprehending schedules. Two way loop style routes can work.
- **Modest Goals** – Initially modest goals should be set, allowing the service time to build a customer base, like any other business.
- **Marketing Funds** – As with any new start-up business, transit needs to be professionally marketed and promoted, with a reasonable budget.

Americans with Disabilities Act Needs and Requirements

ADA requires that service be available for persons with disabilities who *cannot* get to a bus stop or effectively ride the bus. There are two approaches that are generally used. The first is through a complementary, but separate curb-to-curb service for qualifying individuals. In this Plan, that service would be provided through TRAX's existing network of paratransit services. The second approach would be to provide a "Flex" route that would operate as a fixed-route, but time would be built in for the bus to go off route to pick up a rider that requested the service. This plan calls for a fixed-route service that will flex off route when a passenger calls with a special need. Please note that this service will be available for anyone that wants this service (as required in regulation), however persons who do not have a disability limiting their access to a bus will be required to pay a premium fare of \$3. Persons with disabilities would ride half-fare.

This service for persons with disabilities will be advertised on all literature – all buses are accessible and curb-to-curb service is available – with a telephone number to call. In addition all bus shelters and benches must meet the ADA requirements for accessibility.

It should be noted that each of these proposed services below, require local funds to implement. These funds should come from human service agencies, local towns and counties and private sponsors. The fixed-route services will be funded through New Freedom, Section 5311, and the local funds.

The study process revealed that fixed-route or flex-route service has potential in the following communities:

Larger Cities – Fixed-Route and Flex-Route Service

- **Paris** – With over 27,000 population and large businesses close to town, public transit has an opportunity for success. Paris could support a two-bus system with a third bus operating in peak hours to reduce headways.
- **Sulphur Springs** – This small city of 16,000 persons can sustain a two bus transit system that operates in a flex-route mode. Two routes would provide excellent coverage for the city.

Operational Task No. 2 – Dial-a-Ride Service in Towns

The larger towns of Atlanta, Clarkesville, and New Boston are candidates for dial-a-ride service (Figure 4). This immediate response type of service is designed to attract more users through its convenience. Many persons with disabilities will find it very convenient to use for routine needs. Each community could sustain one full-time vehicle.

Dial-a-ride service is such that the customer calls for service and within an hour the vehicle arrives to take the customer to a variety of local destinations. It operates similar to a shared ride taxi. In fact, taxi providers can be used to supplement the service on a subcontract basis (if they meet FTA requirements as applicable). Often these services have the customer call the driver directly for service. The driver then logs in the trip and provides it in the proper order. This approach is used in a number of communities and works best if operating in a small well defined service area. The enhanced quality of this service and the real time scheduling will allow for higher productivity (at least four one-way trips per hour). Fares should be \$2 with discounts available. Funding for this service should come from each town and from New Freedom funding because it will expand opportunities for persons with disabilities.

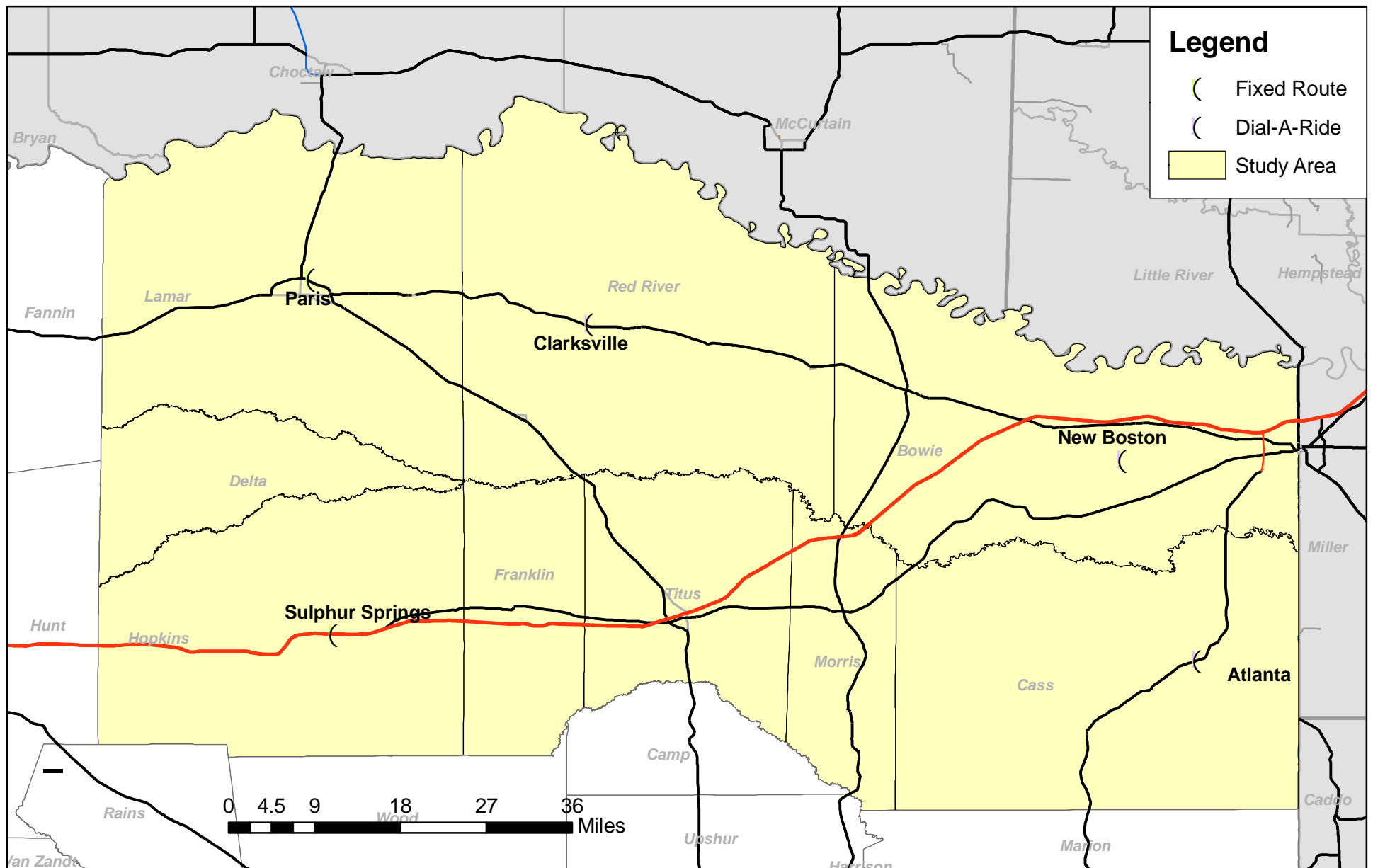


Figure 4: FIXED ROUTE AND DIAL A RIDE

Prepared
by:



Ark-Tex Council of Governments

As with other transit operations, these services will need the support of the local communities in which they serve. It is anticipated that local governments and private businesses will generate the local match in order for this service to start.

Operational Task No. 3 - Fixed Schedule Service

Fixed schedule service operates in designated rural areas according to a posted schedule. The bus will be in a specific area at a specific time. Passengers can be picked up at their door or at designated stops in the area. The vehicle then proceeds to the designated destination area (typically the largest town in the county). Service is limited to specific days and times. The level of service would be dependent on the need. Fixed schedule service allows TRAX to group more trips and eliminate the one-on-one trips typical of rural demand-response service. This type of service would operate in the rural portions of each county in the service area. Some areas may receive five days a week service, while others may receive one day per week service. In most counties, one vehicle would serve the rural portions of the county (or parts of adjacent counties where feasible). Section 5311 and New Freedom funding should be accessed.

Operational Task No. 4 - Paratransit Service

Because of its expense, paratransit service will only be available for persons that cannot, because of a disability, adhere to the bus schedule in rural areas or if in urban areas, access the flex-route service. *New Freedom and Section 5311* funding will be requested for this high level of service. This service must not compete with small town dial-a-ride, fixed schedule or flex route service. The fare for paratransit should be higher than other services.

Operational Task No. 5 - Commuter, Job Training, Education, and Medical Service

The demographic review and analysis of travel patterns, surveys of operators, public meetings and discussions with other stakeholder reveals an agreement that more commuter opportunities into the Texarkana area and Paris should be in place for work, training, school and medical service. In the heavily traveled corridors, this service can start as a bus service that should be scheduled with at least three round trips daily for morning and evening commute and a

mid day trip. In corridors less heavily traveled, a vanpool may be more appropriate as a starting point, with the opportunity to grow into a bus service.

Major Corridors

Based on the analysis of U.S. Census Journey to Work data in Technical Memorandum No. 3, we can determine the potential for each corridor (Figure 5). The only corridors that can sustain and justify a Monday through Friday commuter/medical run are:

- I-30 corridor between New Boston, Red River Depot and Texarkana
- U.S. Highway 59 between Atlanta and Texarkana

Additional corridors that can sustain vanpools and future bus service include:

- Sulphur Springs to Paris, through Cooper
- Paris to Clarksville
- Paris to Commerce
- Sulphur Springs to Mt. Pleasant to Red River Depot

Operational Task No. 6 - Expanded Service in Surrounding Texarkana

Currently TRAX provides some unfunded service to residents outside the Texarkana Urban Transit service area, concentrating on persons with disabilities and frail seniors. This service should be expanded to meet the needs of all persons with disabilities and frail seniors. This service should be funded with *New Freedom* and *Section 5310* funds.

Operational Task No. 7 - Shopper Shuttle Services

With peak hour vehicles available for other services during mid day, it may be possible to offer shopper shuttle services to sponsors willing to support the transit system. The shopper shuttle targets neighborhoods with high numbers of transit dependent populations, typically elderly and persons with disabilities, and frequent destinations (e.g. Wal-Mart, Kmart, Albertsons, and medical centers), and can be very effective during off peak hours. Often these

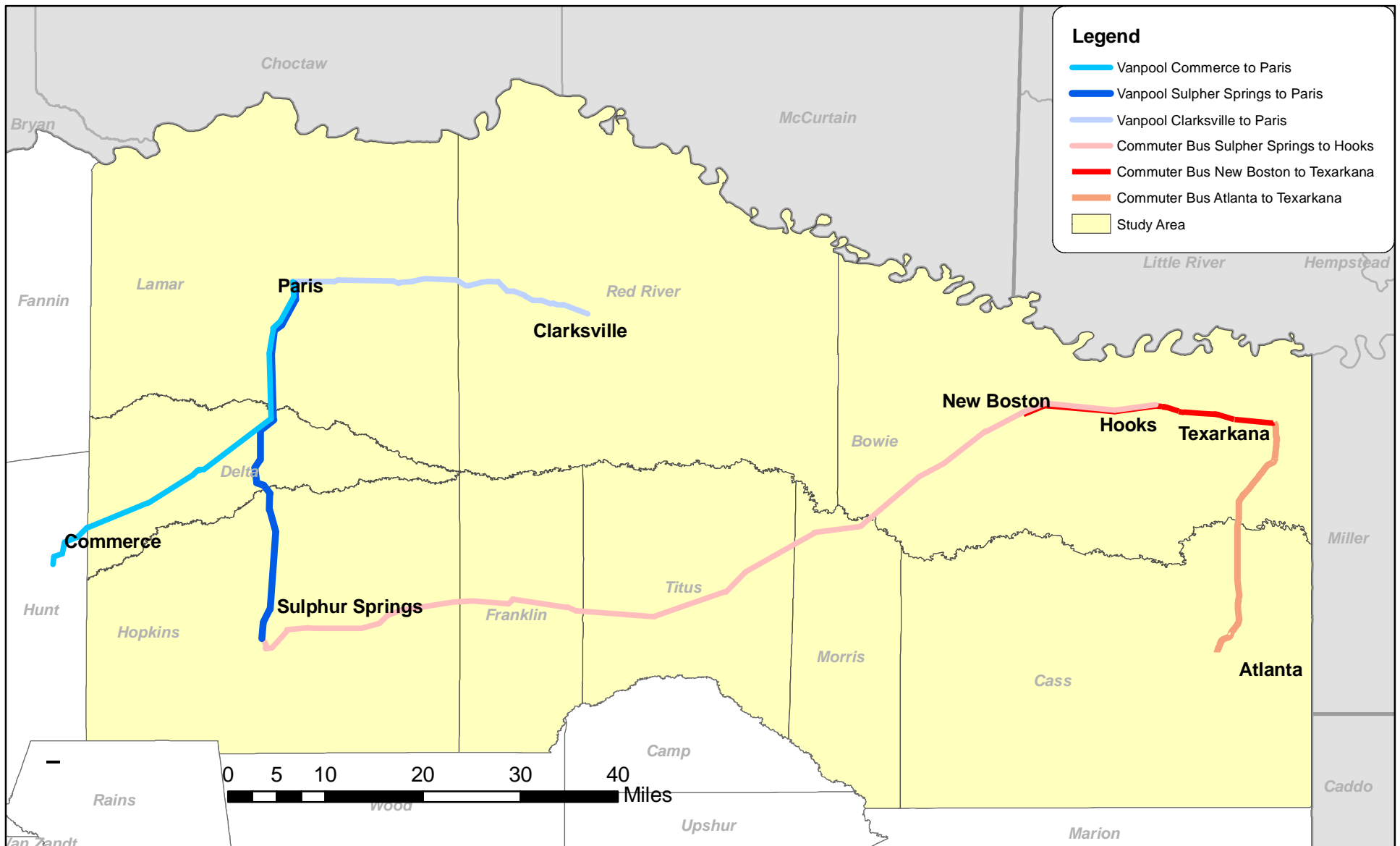


Figure 5: COMMUTER BUS AND VANPOOL ROUTES

Prepared by: **KFH GROUP**



Ark-Tex Council of Governments

arrangements pay for themselves through funding from the retailers, who in return, receive the business, advertising/promotion, and they get involved in a positive way with their communities.

There are numerous examples (in Texas and across the country) of this type of service being successful with supermarkets and discount “big boxes.” Typically, shuttles target transit dependent persons (elderly, disabled, and low-income persons) in their neighborhoods. Service is usually for shopping and medical.

CAPITAL NEEDS

The number of vehicles will not change substantially (since service will mostly change from one approach to the new planned approach), but over time new vehicles will be needed. These vehicles should be purchased based on need. For example, fixed-route and commuter buses should be at least medium duty transit coaches of 30 feet in length. “Cutaway” type buses should be used in paratransit and fixed schedule service.

Technology Needs

As TRAX takes on the dispatching for the entire system, it would be advisable to seek funds to invest in software and other technologies to enhance service efficiency, effectiveness, and safety. Paratransit software should be purchased first, followed by mobile data terminals and automatic vehicle locators; keeping in mind that this should happen over at least a five year period or longer if warranted. TRAX should also consider sharing this technology with Texarkana’s system to reduce capital and on going support costs.

OTHER COORDINATION AND OPERATIONAL TASKS

- **Image Change** – TRAX needs a “make-over” demonstrating its new image as a public transit system. A new logo and color scheme should be employed with separate color schemes for the different fixed-route services.
- **One Stop Shopping** – The Mobility Manager should be the single source of general and specific information for all transit services available. This can include a single website, telephone support, and centralized ticket purchasing. In the rural areas this

can include intercity bus and TRAX, while in urban areas it can be taxis, fixed-route, and intercity bus.

FUNDING PRIORITIES

There are a wide variety of funding sources that can be used by TRAX to provide the services and tasks described in this plan. The JARC funds are targeted for access to employment for low income persons. The New Freedom funding is to be used to expand access beyond ADA for persons with disabilities. The Section 5310 funds are available for elderly and disabled transportation. These programs all require a system plan to use these funds. As part of the plan the funding sources are addressed through this document.

Additional funding sources will include MTP, Sections 5311 and 5307, Workforce Board, and AAA. Private contract revenue, advertising revenue, and other local support will be utilized as well. It will be important to utilize the right funds for each service, in order to maximize local match and the total funding available. A summary of the proposed funding sources is contained in Table 4.

Table 4: SUMMARY OF FUNDING SOURCES

Activity	JARC	Health & Human Service	New Freedom	Section 5310	Section 5311	MTP	Local Funding	Public/ Private	MPO Planning	TxDOT Planning
Mobility Manager	Yes		Yes						Yes	Yes
Ridesharing	Yes									
Procure Vehicles			Yes	Yes	Yes		Yes			
Preventive Maintenance				Yes						
Commuter Service	Yes	Yes			Yes		Yes	Yes	Yes	
Implement Fixed-Route			Yes				Yes			
Implement New MTP		Yes				Yes				
Procure Technology			Yes	Yes	Yes					
Implement Dial-a-Ride		Yes	Yes		Yes		Yes			
Implement Fixed Schedule		Yes	Yes		Yes		Yes			
Serve around Texarkana		Yes	Yes				Yes			
Shopper Shuttles							Yes	Yes		